

**IN THE CLAIMS:**

- 1 1. (Original) Method for comparing a first content with a second content to determine  
2 whether the contents are identical, the method comprising the steps of:  
3       identifying a protocol encoding the first content and second content;  
4       computing a first signature of the first content and a second signature of the sec-  
5 ond content; and  
6       comparing the first computed signature with the second signature to determine  
7 whether the first content is identical to the second content.
- 1 2. (Original) The method of claim 1 further comprising the steps of:  
2       selecting a first set of data segments from the first content and a second set of data  
3 segments from the second content; and  
4       using the selected first set of data segments and the second set of data segments to  
5 compute the first signature and the second signature.
- 1 3. (Original) The method of claim 2 wherein the selected first set of data segments and  
2 second set of data segments comprise locations associated with one or more protocol  
3 markers.
- 1 4. (Original) The method of claim 1 wherein the step of computing the signature of the  
2 first content and the signature of the second content further comprises the steps of:  
3       identifying one or more protocol markers associated with the first content; and  
4       identifying one or more protocol markers associated with the second content.
- 1 5. (Original) The method of claim 4 wherein the one or more protocol markers associ-  
2 ated with the first content comprises discrete cosine coefficients.

1 6. (Original) The method of claim 4 wherein the one or more protocol markers associ-  
2 ated with the second content comprises discrete cosine coefficients.

1 7. (Original) The method of claim 4 wherein the one or more protocol markers associ-  
2 ated with the first content comprises motion vectors.

1 8. (Original) The method of claim 4 wherein the one or more protocol markers associ-  
2 ated with the second content comprises motion vectors.

1 9. (Original) The method of claim 4 further comprising the steps of:  
2 identifying a length of the first content; and  
3 identifying a length of the second content.

1 10. (Previously Presented) A content comparator executing on a computer, the content  
2 comparator adapted to compare first content with a second content, the comparator com-  
3 prising:  
4 a protocol identification module configured to identify a first protocol associated  
5 with the first content and a second protocol associated with the second content;  
6 a plurality of data segmentation modules configured to select a set of data seg-  
7 ments from each of the first content and the second content;  
8 a plurality of signature computation modules configured to generate a first signa-  
9 ture of the first content and a second signature of the second content; and  
10 a signature comparison module configured to compare the first signature with the  
11 second signature.

1 11. (Original) An apparatus for comparing a first content with a second content, the ap-  
2 paratus comprising:  
3 means for identifying a protocol encoding the first content and the second content;

4 means for selecting a set of data segments from the first content and the second  
5 content;

6 means for computing a signature of the first content and a signature of the second  
7 content; and

8 means for comparing the computed signature of the first content with the com-  
9 puted signature of the second content.

1 12. (Original) The apparatus of claim 11 wherein the selected data segments comprises  
2 locations associated with one or more protocol markers.

1 13. (Original) The apparatus of claim 11 wherein the means for computing the signature  
2 of the first content and the signature of the second content further comprises:

3 means for identifying one or more protocol markers associated with the first con-  
4 tent; and

5 means for identifying one or more protocol markers associated with the second  
6 content.

1 14. (Original) The apparatus of claim 13 wherein the one or more protocol markers as-  
2 sociated with the first content comprises discrete cosine coefficients.

1 15. (Original) The apparatus of claim 13 wherein the one or more protocol markers as-  
2 sociated with the second content comprises discrete cosine coefficients.

1 16. (Original) The apparatus of claim 13 wherein the one or more protocol markers as-  
2 sociated with the first content comprises motion vectors.

1 17. (Original) The apparatus of claim 13 wherein the one or more protocol markers as-  
2 sociated with the second content comprises motion vectors.

- 1 18. (Original) The apparatus of claim 13 further comprises:  
2 means for identifying a length of the first content; and  
3 means for identifying a length of the second content.
- 1 19. (Original) A method to compare a first content with a second content in a network  
2 storage environment, the method comprising the steps of:  
3 receiving the first content;  
4 computing a signature of the first content;  
5 comparing the computed signature of the first content with a signature of the second  
6 content; and  
7 identifying, if the computed signature of the first content matches the signature of the  
8 second content, that the first content is identical to the second content.
- 1 20. (Original) The method of claim 19 wherein the step of computing the signature of  
2 the first further comprises the steps of:  
3 identifying a set of protocol markers associated with the content; and  
4 generating the signature from the identified set of protocol markers.
- 1 21. (Previously Presented) The method of claim 20 wherein the set of protocol markers  
2 further comprise a set of discrete cosine coefficients.
- 1 22. (Previously Presented) The method of claim 20 wherein the set of protocol markers  
2 further comprises one or more motion vectors.
- 1 23. (Original) The method of claim 19 wherein a size of the received content is utilized  
2 in creating the signature.
- 1 24. (Original) A method for identifying content using a protocol associated with the  
2 content as a signature, the method comprising the steps of:

3       determining the protocol associated with the content;  
4       identifying a set of markers associated with the protocol;  
5       obtaining a set of markers from the content using the set of marker associated  
6       with the protocol; and  
7       generating a signature of the content using the identified markers.

1   25. (Original) The method of claim 24 wherein the identified markers are within a sub-  
2   set of the entire content.

1   26. (Original) The method of claim 24 wherein a size associated with the content is util-  
2   ized to uniquely identify the content.

1   27. (Original) The method of claim 24 wherein the signature is utilized in a network  
2   caching device to determine whether data should be forwarded from the network caching  
3   device.

1   28. (Original) The method of claim 24 wherein the signature is utilized to determine if a  
2   local copy of the content should be accessed.

1   29. (Original) The method of claim 24 wherein the signature is utilized to determine if a  
2   remote copy of the content should be accessed.

1   30. (Previously Presented) A protocol marker identifier executing on a computer for  
2   generating a signature of a content comprising:  
3       a data segmentation module configured to select a set of data segments from the  
4   content; and  
5       a signature computation module configured to generate the signature from the set  
6   of data segments.

1 31. (Previously Presented) The protocol marker identifier of claim 30 further comprising  
2 a protocol identification module configured to identify a protocol associated with the con-  
3 tent.

1 32. (Previously Presented) The protocol marker identifier of claim 30 wherein the signa-  
2 ture comprises a set of protocol markers.

1 33. (Original) The protocol marker identifier of claim 32 wherein the set of protocol  
2 markers comprises a set of discrete cosine transform coefficients.

1 34. (Original) A network caching device adapted to utilize a signature associated with a  
2 protocol for caching decisions, the network caching device comprising:  
3 means for determining a protocol of new contents;  
4 means for computing a signature of the content; and  
5 means for comparing the computed signature of the new content with a signature  
6 of other content.

1 35. (Previously Presented) The network caching device of claim 34 wherein the means  
2 for computing a signature further comprises:  
3 means for identifying a set of markers associated with the protocol associated  
4 with the content; and  
5 means for obtaining appropriate markers associated with the content.

1 Please add new claims 36 *et al.*

1 36. (New) A method, comprising:

2 identifying a protocol encoding of a first content and a second content;  
3 identifying a first signature of the first content and a second signature of the sec-  
4 ond content, wherein each signature contains one or more protocol markers identifying  
5 the content;  
6 comparing one or more protocol markers within the first signature and the second  
7 signature to determine whether the first content is identical to the second content; and  
8 terminating transmission of the second content, if the first content and the second  
9 content are identical.

1 37. (New) The method of claim 36, further comprising:

2 computing the first signature of the first content as the first content is converted  
3 from raw data to the protocol; and  
4 computing the second signature of the second content as the second content is  
5 converted from raw data to the protocol.

1 38. (New) The method of claim 36, further comprising:

2 continuing transmission of the second content, if the first content and the second  
3 content are not identical.

1 39. (New) The method of claim 36, wherein the one or more protocol markers associ-  
2 ated with the first content comprises discrete cosine coefficients.

1 40. (New) The method of claim 36, wherein the one or more protocol markers associ-  
2 ated with the second content comprises discrete cosine coefficients.

1 41. (New) The method of claim 36, wherein the one or more protocol markers associ-  
2 ated with the first content comprises motion vectors.

1 42. (New) The method of claim 36, wherein the one or more protocol markers associ-  
2 ated with the second content comprises motion vectors.

1 43. (New) The method of claim 36, further comprising:  
2 identifying a length of the first content; and  
3 identifying a length of the second content.

1 44. (New) A method, comprising:  
2 determining a protocol of a new content;  
3 computing a signature of the new content;  
4 comparing the computed signature of the new content with other content stored in  
5 a network cache to determine if the new content is identical to any the other content on  
6 the network cache; and  
7 terminating transmission of the new content, if the new content is identical any  
8 other content on the network cache.

1 45. (New) The method of claim 44, further comprising:  
2 continuing transmission of the new content, if the new content is not identical to  
3 any other content within the network cache.

1 46. (New) The network caching device of claim 44 wherein the step of computing a sig-  
2 nature further comprises:  
3 identifying a set of markers associated with the protocol associated with the con-  
4 tent; and  
5 obtaining appropriate markers associated with the content.